CLAIMS

What is claimed is:

1. A code division, multiple access (CDMA) receiver, comprising:

an RF section for receiving a CDMA signal;

a circuit for determining an instantaneous total received power (Io) of the received CDMA signal; and

a searcher that is one of enabled for operation or disabled from operation in accordance with the value of Io.

2. A CDMA receiver as in claim 1, wherein said circuit comprises a comparator for comparing Io against a threshold, and for generating a searcher trigger signal only when Io exceeds the threshold.

3. A CDMA receiver as in claim 1, wherein said circuit comprises a comparator for comparing Io against a threshold, and for generating a searcher trigger signal when Io exceeds the threshold, or if Io does not exceed the threshold, for generating the searcher trigger signal within some predetermined period of time.

4. A CDMA receiver as in claim 1, wherein said searcher comprises a searcher buffer for storing Inphase and Quadrature (I/Q) samples, and wherein said searcher is responsive to a trigger signal generated by said circuit for storing I/Q samples into said buffer.

5. A CDMA receiver as in claim 1, wherein said circuit operates to accumulate n symbol power samples, to scale the n accumulated symbol power samples, and to compare the scaled symbol power samples to a reference value.

6. A CDMA receiver as in claim 5, wherein said circuit further operates, if the scaled symbol power value is above the reference value, to generate a trigger for the searcher to cause the searcher to begin storing Inphase and Quadrature (I/Q) samples into a searcher buffer.

7. A CDMA receiver as in claim 6, wherein said circuit further operates, if the scaled symbol power value is below the reference value, to repeat accumulating, scaling and comparing the signal power samples, and if the scaled symbol power value does not exceed the reference value after x iterations, to generate the trigger for the searcher to cause the searcher to begin storing I/Q samples into the searcher buffer for processing the data for acquisition or set maintenance purposes.

8. A CDMA receiver as in claim 1, wherein the value of Io is computed over numbers of samples that are less than the total size of a searcher sample buffer, and is used to select samples from only a portion of the searcher sample buffer for use by the searcher.

9. A method for operating a code division, multiple access (CDMA) receiver, comprising:

receiving a CDMA signal;

determining an instantaneous total received power (Io) of the received CDMA signal; and

enabling or disabling a searcher for operation in accordance with the value of Io.

10. A method as in claim 9, wherein determining the instantaneous total received power comprises comparing Io against a threshold, and generating a searcher trigger signal only when Io exceeds the threshold.

11. A method as in claim 9, wherein determining the instantaneous total received power comprises comparing Io against a threshold, and generating a searcher trigger signal only when Io exceeds the threshold, or if Io does not exceed the threshold, generating the searcher trigger signal within some predetermined period of time.

12. A method as in claim 9, wherein the searcher includes a buffer for storing Inphase and Quadrature (I/Q) samples, and further comprising storing I/Q samples into the buffer in response to a trigger signal generated when Io exceeds a threshold, or if Io does not exceed the threshold, to a trigger signal generated within some predetermined period of time.

13. A method as in claim 9, wherein said method operates to accumulate n symbol power samples, to scale the n accumulated symbol power samples, to compare the scaled symbol power samples to a reference value, and if the scaled symbol power value is above the reference value, to generate a trigger to begin storing Inphase and Quadrature (I/Q) samples into a searcher buffer, wherein said method further operates, if the scaled symbol power value is below the reference value, to repeat accumulating, scaling and comparing the signal power samples, and if the scaled symbol power value does not exceed the reference value after x repetitions, to generate the trigger for the searcher to cause the searcher to begin storing I/Q samples into the searcher buffer.

14. A method as in claim 9, wherein the value of Io is determined over a number of samples that is less than the total size of a searcher sample buffer, and is used to select samples from only a portion of the searcher sample buffer for use by the searcher.

15. A method for operating a code division, multiple access (CDMA) receiver, comprising:

receiving a CDMA signal;

storing samples of the received CDMA signal into a buffer;

determining an instantaneous total received power (Io) of the received CDMA signal over m consecutive segments of the received CDMA signal; and

using the maximum value of Io to identify one of m segments of the searcher buffer on which a searcher is to be enabled for operation.

16. A method for operating a code division, multiple access (CDMA) receiver, comprising:

receiving a CDMA signal and storing samples of the received CDMA signal into a searcher buffer while determining an instantaneous total received power (Io) of the received CDMA signal; and

selectively one of generating or not generating a searcher trigger signal in accordance with the value of Io, wherein when generated the searcher trigger signal causes a searcher to process the stored samples. .

17. A method as in claim 16, wherein determining the instantaneous total received power comprises comparing Io against a threshold, and generating the searcher trigger signal only when Io exceeds the threshold.

18. A method as in claim 16, wherein determining the instantaneous total received power comprises comparing Io against a threshold, and generating the searcher trigger signal only when Io exceeds the threshold, or if Io does not exceed the threshold, generating the searcher trigger signal within some predetermined period of time.

19. A method as in claim 16, wherein the searcher buffer stores Inphase and Quadrature (I/Q) samples

20. A method as in claim 16, wherein said method operates to accumulate n symbol power samples, to scale the n accumulated symbol power samples, to compare the scaled symbol power samples to a reference value, and if the scaled symbol power value is above the reference value, to generate the searcher trigger signal, wherein said method further operates, if the scaled symbol power value is below the reference value, to repeat accumulating, scaling and comparing the signal power samples, and if the scaled symbol power value does not exceed the reference value after some period of time, to generate the searcher trigger signal.

21. A code division, multiple access (CDMA) receiver, comprising:

a receiver circuit for receiving a CDMA signal;

a memory for storing samples of the received CDMA signal; and

a signal processor circuit for determining, during a time that the samples are being stored in said memory, an instantaneous total received power (Io) of the received CDMA signal for selectively one of generating or not generating a searcher trigger signal in accordance with the value of Io, wherein when generated the searcher trigger signal causes a searcher to process the stored samples. .

22. A CDMA receiver as in claim 21, wherein said signal processor circuit, when determining the instantaneous total received power, compares Io against a threshold, and generates the searcher trigger signal only when Io exceeds the threshold.

23. A CDMA receiver as in claim 21, wherein said signal processor circuit, when determining the instantaneous total received power, compares Io against a threshold, and generates the searcher trigger signal only when Io exceeds the threshold, or if Io does not exceed the threshold, generates the searcher trigger signal within some predetermined period of time.

24. A CDMA receiver as in claim 21, wherein said memory stores Inphase and Quadrature (I/Q) samples

25. A CDMA receiver as in claim 21, wherein said signal processor circuit operates to accumulate n symbol power samples, to scale the n accumulated symbol power samples, to compare the scaled symbol power samples to a reference value, and if the scaled symbol power value is above the reference value, generates the searcher trigger signal,   wherein if the scaled symbol power value is below the reference value, said signal processor circuit repeats accumulating, scaling and comparing the signal power samples, and if the scaled symbol power value does not exceed the reference value after some period of time, generates the searcher trigger signal.